National Work For the Conservation of Vision

LEWIS H. CARRIS

NEW YORK CITY

Managing Director of the National Committee
For the Prevention of Blindness

HV2333
.C37
1927

HV
2333
C
copy one

AMERICAN FOUNDATION
FOR THE BLIND INC.

Reprinted from THE JOURNAL OF MEDICINE, August, 1927

National Work for the Conservation of Vision*

Lewis H. Carris, New York City.

Managing Director of the National Committee for the Prevention of Blindness

It is a great privilege to address the Cincinnati Academy of Medicine on the subject of conserving sight. Cincinnati has for many years been a leader in one distinct phase of sight saving, the maintenance of conservation of vision classes. Such classes can be established on a sound basis and conducted efficiently only when there is the closest co-operation between the medical profession and educators. That co-operation has existed to a remarkable degree in Cincinnati. It is only natural that a wide interest in the whole subject of conserving sight should accompany the establishment of such classes.

This paper will attempt to set forth briefly two things: First, an analysis of the conservation of vision in its national aspects; second, ophthalmological problems in sight-saving class work.

In the second part of the paper an appeal will be made to the members of the Cincinnati Academy of Medicine, and especially those who are ophthalmologists, to assist in some of the problems which remain to be solved in order that sight-saving classes may make still greater progress.

Part I.

National Aspects of Sight Conservation.

The raison d'etre of the National Committee for the Prevention of Blindness is given in the name itself. It can only exist, be maintained and grow as there may exist in the public consciousness a clear conception of blindness as a remediable catastrophe from which society suffers. Its work must be founded on a demonstrable hypothesis that blindness can be prevented.

In fulfilling its purpose the National Committee must be constantly alert in two activities: First, securing from the special fields of science and medicine, specific and detailed information as to how actual blindness can be prevented and good sight conserved; second, in interpreting this information for society at large, to the end that necessary legislative and social action may be taken to carry into effect the successful methods demonstrated by scientific experience.

*Read at a meeting of The Academy of Medicine of Cincinnati, April 18, 1927.

The above statements are general. It may be well to discuss more at length some of the aspects of each of these two main heads.

A.—Some Demonstrated Ways of Preventing Blindness.

1. It was established during the third quarter of the nineteenth century that silver nitrate was a sure preventive of babies' sore eyes, which was at that time one of the major causes of blindness. It took a number of years before the medical profession generally accepted this as a proven fact, and still more years before the public at large began to realize the importance of the universal application of this certain preventive. Even today much needs to be done through education and by the medical profession in proper routine procedures to prevent ophthalmia neonatorum and insure prompt and effective treatment for diagnosed cases. It was the realization that babies' sore eyes caused unnecessary blindness that led to the formation of the New York State Committee for the Prevention of Blindness in 1908, and its successor, the National Committee for the Prevention of Blindness in 1915.

2. A more recent example, and one in which there is clearly a great future field for usefulness in prevention of blindness, is shown in the rather recent acceptance that if pregnant women afflicted with syphilis can be promptly and efficiently treated, the inheritance of this disease by the offspring can be practically eliminated. Inasmuch as heredo-syphilis is the cause of much blindness and serious vision impairment in youth and early adult life, it is important that the public understand the necessity for the provision of adequate service for expectant mothers and the education of every individual to a realization of this necessity. The whole subject of venereal disease, its prevention and treatment is of great importance in the Prevention of Blindness movement although the primary responsibility for promoting such facilities does not rest with the National Committee. There should be the closest co-operation between the Committee and all organizations interested in the prevention of venereal disease.

3. Trachoma is a world-wide scourge. In

America there are thousands of citizens and Indian wards who are afflicted by this eye disease which often results in economic failure and in loss of sight. To a considerable extent this is a public health problem, and the N. C. P. B. must be active in two directions: First, arousing a greater interest for better provision of remedial measures to the end that those suffering from this affliction may be cured; and second, encouraging by financial aid the setting up of research services aiming to discover the cause of the disease and more rational methods for eradication.

B.—Degenerative Eye Diseases.

4. Except as specifically associated with systemic disease, cataract occurs without proven cause. Glaucoma has baffled research so far as determining origin of the disease is concerned, but ophthalmologists have definitely determined methods of minimizing its ravages where early recognition occurs. Much needs to be done in the way of popular education both with physicians and with the laity toward earlier recognition of these conditions and securing efficient medical advice for each.

5. Iritis, choroiditis and retinitis may often arise from focal infections in the vicinity of the eye or in more remote parts of the body. A large field of teaching will need to be covered in persuading parents and others that proper treatmen of portions of the body other than the eye may prevent further impairment of vision or eye disease.

6. Phlyctenular keratitis may probably be due to a nutritional disturbance and in many cases is closely associated with tuberculosis of some form in other parts of the body. This affliction is a health problem often of major significance susceptible of correction by sanitary procedures and health teaching coincident with medical treatment.

7. Teachers and the medical profession generally are not well informed as to conditions under which myopia becomes progressive, nor do they appreciate how to lessen this danger. Much effort will be required to cover this field.

8. With the rapid expansion of industry, rapid transit, and expansive developments in the chemical field, there came an increasing amount of blindness from accidents. There are two activities which must be pressed if blindness from this cause is to be reduced. First, the provision of prompt and harmless first aid and follow-up treatment in case of accident; and second, information as to devices which may be installed in industry to prevent accident and to educate workmen as to the importance of "Safety First" as far as eyes are concerned.

9. The physical and educational handicap of poor sight (not blindness) seriously retards human welfare. Here the number of affected is many times the number of those suffering blindness, although the calamity is not usually to be compared with that of total loss of sight. Nevertheless the total amount of inefficiency and unhappiness caused by seriously poor sight looms larger as a national problem. There is need then for a broad program which will educate the American public as to proper eye hygiene, correct professional practice, and correct professional methods. Here the field leads into the public school system and activities for the establishment of sight-saving classes.

Agencies for Conserving Sight.

In broad terms, we may speak of every citizen as a person whose sight must be saved. On the other hand, in considering individual cases we may think of sight as being lost through the specific causes of accident or disease or of defective sight of individuals as caused by accident, disease, eyestrain, defective illumination, or poor eye hygiene. There are in general two responsibilities: first, inculcation generally of a correct personal practice which will avoid eye complications including the inauguration and maintenance of protective measures such as good lighting and protective devices in industry; second, the application of relief and cure to those who are already afflicted. There follows a cataloguing of the agencies of society having a responsibility more or less direct in preventing actual blindness or in conserving vision.

Medical and Allied Professional Service.

1. For the relief of those threatened with blindness or partial loss of sight. Here it is clear that the prevention of actual blindness lies in the hands of the medical profession, and especially in that particular branch of medicine known as ophthalmology. All practicing oculists are preventing a certain amount of blindness and averting eye catastrophies, but in addition many of them are doing a very much larger service in the free clinics and hospital wards or in their own offices with those unable to pay for service.

2. The general practitioner, who in the routine of his practice first discovers potential cases of blindness or of disease which may have as an actual result the loss of sight. He also as a matter of routine examination discovers symptoms which may be significant of defective

vision. The general practitioner and the physician who limits his practice to obstetrics, where required by state law or regulation or acting on his own initiative, makes a valuable contribution to the prevention of blindness by adding protective solutions to the eyes of the newborn.

3. Optometrists, who are engaged in the profession of measuring the acuity of vision and of relieving defective eyesight where disease does not enter in as a complication, make their contribution.

4. Nurses, especially in the field of public health, who, as home health teachers, school aides, or acting under the direction of the medical profession, are engaged in the routine examination of a large number of persons some of whom may be potential cases of blindness.

The above classification includes those professions where expert services are given in actual case work in the prevention of blindness.

Engineering Services.

The second kind of responsibility comes in the engineering field, and may be briefly summarized as follows: The responsibility in this field may be said to be an indirect one; nevertheless good practice results in much sight saving.

1. Architects are responsible for designing buildings so that the best natural and artificial light may be provided.

2. Illuminating engineers who devise and supervise the installation of lighting systems.

3. Safety engineers are charged with the responsibility of devising, installing and maintaining proper safeguards to the eyes in industry.

School Systems.

All persons responsible for the education of school children have an indirect responsibility for conserving sight, (a) through a realization of the importance of health education which necessarily includes sight conservation as a modern educational responsibility; (b) through a realization that sight is the most important avenue of approach to the brain and that poor vision is often a bar to educational progress.

In some instances in health examinations the school responsibility becomes almost professional. This is especially true when school physician and nurses are employed.

Altogether too little attention has been given to the printed page as a factor of moment in conserving vision or as a vision hazard. Much of value may be contributed by enlisting the active interest of publishers and typemakers and securing their co-operation in production of printed matter likely to keep the eye at ease and with type and paper finish of such quality that no undue eye strain be developed.

Public Welfare Agencies.

Prevention of blindness may be considered a public welfare problem and, in certain aspects public welfare agencies may be considered as active workers for the prevention of blindness.

1. Public health agencies, such as the U. S. Public Health Service, state and municipal departments of health. These agencies are interested in the public health aspects of trachoma, ophthalmia neonatorum, and syphilis. Hospitals are now being operated co-operatively in the states of Kentucky, Tennessee, Missouri, and perhaps in some other states, the U. S. Public Health Service and the state sharing the expense. In the prevention of ophthalmia neonatorum all states now require the reporting of this disease, the health authorities in 28 states have sufficient authority to provide medical and nursing care, 32 states supply doctors and midwives with prophylactic outfits in wax ampules and free of cost, and a number of cities have such careful follow-up of reported cases of ophthalmia that no baby is apt to go long with sore eyes without having opportunities to get both nursing and medical care. Since the great war the federal grants to states have stimulated an expansion of free clinics for those afflicted with syphilis. All of these official activities are likely to aid in a reduction of the incidence of blindness and impairment of vision that should soon be measurable statistically.

2. State industrial commissions or state agencies interested in the administration of compensation acts. These public agencies are of necessity actively interested in the establishment of rules and regulations and, in some instances, legislation, to the end that accidents in protected industries should be eliminated or at least minimized and also that the victims of accident may have prompt professional attendance.

3. State agencies engaged in welfare work for the blind themselves. It is almost universally true that any agency dealing with welfare work for the blind has some responsibility at least in the field of prevention. No citizen should be classified as being permanently blind until every means has been taken which will confirm the medical finding of total and permanent blindness. It also frequently happens that those engaged in welfare work for the blind extend their activities into the general field of prevention. This

is the case in a number of state commissions for the blind.

The Function of the National Committee for the Prevention of Blindness.

In general, the methods of procedure of the National Committee are excellently stated in its By-laws, as follows:

1. To endeavor to ascertain, through study and investigation, any causes, whether direct or indirect, which may result in blindness or impaired vision.

2. To advocate measures which shall lead to the elimination of such causes.

3. To disseminate knowledge concerning all matters pertaining to the care and use of the eyes.

It is clear from the above discussion that the National Committee for the Prevention of Blindness in carrying out its work must co-operate with each of the agencies of society enumerated above having in any sense a professional responsibility for preventing blindness or conserving sight. It is also clear that its greatest responsibility lies in co-operation with the medical profession itself.

National or State Agency.

Should there be a further expansion of the activities of the National Committee, or should the country be so organized that there may be either independent, local, state or regional agencies carrying out the general purposes of the prevention programs?

It is only fair to say that so far there have been few examples of state or local volunteer agencies maintaining active campaigns. The Illinois Society for the Prevention of Blindness has of course an experience extending over a decade. The Maryland Society for the Prevention of Blindness has been in existence for practically the same length of time, but only within the last few months has it employed a paid executive. Other state volunteer organizations for the prevention of blindness have done only sporadic work, and none of them may be said to cover the field of prevention locally in the way in which the need is clear.

Field Work.

The question arises whether any voluntary state or local organization for the prevention of blindness can be successful unless there are funds provided so that there may be paid workers in the field or unless there is some one so devoted to the cause as to furnish the equivalent in volunteer service.

It is clear to those who are working professionally in the social field of preventing blindness that there is need for local workers in the specialized activities of prevention. Whether these workers shall be employed by governmental agency or private volunteer agency would of course be decided by local conditions. It may be well at this time, however, to discuss some of the activities possible for a full-time worker in the field of preventing blindness. Such workers may be classified somewhat roughly as being either (a) medical workers, or (b) social workers.

In the case of medical workers the person selected is usually a nurse, although in certain instances, especially in state departments, such persons may have medical degrees or may be directors of bureaus. For the purposes of this paper, the discussion is confined to the services which can be rendered by a nurse or a medical social worker, and particularly in a state organization, either public or private. It may also be said where the work is that of a nurse or social worker, there are two general fields in which responsibility lies; first, that of case work, and second, that of education.

The type of work done by the nurse or social worker differs only in certain aspects, that is to say, the nurse as a worker in the field of prevention of blindness may make a closer contact with doctors and eye clinics and can, in doing individual case work, carry out the directions of the doctor, and can also secure the co-operation of the medical profession.

It is to be assumed that any agency in a state which sets itself up to prevent blindness will not attempt to carry the total load of case work, but on the other hand should expect that all ordinary cases of simple eye disease and defective vision would clear through the regularly established channels. The aim of the organization should be to seek cases where vision is seriously threatened or where vocational efficiency is materially reduced by defective vision and to aid in securing the specific help which is necessary to relieve that condition and which under the given circumstances would not probably be carried out by the person needing the help. The nurse employed would of necessity do a considerable amount of work in what may be called the social field. The *field worker* in prevention of blindness should act as co-ordinating agent.

In other words, the special worker in the field of prevention should become widely known to

the community served as the one to whom any citizen, man, woman, or child, may go in an emergency for advice and action. Except in the cases of nurses or medical social workers, any special knowledge of the diseases of the eye other than that which can be secured by a layman of average intelligence, from self-directed study, is not assumed. There is presupposed, however, a personality capable of adjusting relationships. It is to be pointed out that in the field under discussion it is not professional service rendered for treatment or cure, but rather the professional service of the social worker who has an intimate knowledge of the agencies in the community which may be of specific assistance in the given case where sight is in danger.

The second part of the worker's activities is in the field of education. Such a worker should be sufficiently informed to be able to talk interestingly and intelligently on the importance of sight conservation before any audience which it may be possible to reach.

By case work we mean visits to the afflicted individual with suitable advice for correction of environmental hazards, chaperonage if need be to physician or clinic for professional advice, such family rehabilitation as may be indicated to improve the social condition, and if need be augmenting the available family funds. In other words, we mean an intensely practical individual type of education and service.

It is probable that a volunteer state agency would be more generally engaged in educational work than in actual case work, unless a state should adopt the policy of centralized control to deal with cases in whatever locality they may occur. It is usual, however, for case responsibility to be vested in local communities. It is probable that a complete program for the prevention of blindness would include the volunteer national organization, a state volunteer organization, and the organization of local volunteer communities. If the work of conservation is in the last analysis to be done by the local community, the organization of local agencies should be encouraged financially and otherwise by society. It is of course taken for granted that the services which have been discussed are important enough to require the full time of an adequately paid worker.

Method of Organization in Prevention of Blindness.

A national volunteer organization must be a recognized and acknowledged source of authentic information concerning the sociological, economic and health aspects of the prevention program, not only for laymen but in certain respects also for assisting the medical profession. That is to say, in matters of state and local organization, public and private, the National Committee must be ready to furnish complete information not only as to existing legislation and organization, but also as to desirable legislation and organization. It should gather the results of research in any medical field and should prepare dependable information which the public at large can use on any eye subject. It must be prepared to assist existing organizations which deal with any aspect of prevention and should encourage being called upon by such agencies to furnish dependable information which will fit into any of the health or social programs which those organizations may be engaged in carrying out.

The national organization should encourage official agencies to establish and maintain prevention programs. Theoretically, at least, it should look ahead to the time when society may be so organized that there will no longer be need for its services. For example, in the field of ophthalmia neonatorum, it is entirely possible that within a relatively short time all necessary activities, both as to practice and education, will be conducted by official health agencies. Already there exists in each state some legislation concerning this subject and the administration of such legislation is in the hands of state departments of health. Similarly, the U. S. Public Health Service helps to promote legislation and distribute information in this field.

PART II.

Ophthalmological Problems in Sight-Saving Class Work.

There are two main reasons for organizing sight-saving classes: (1) To save sight and (2) to provide an education for those who otherwise would be uneducable.

The first of these is by far the more important. Preservation of sight is more important to an individual than school education. It follows then that the educational process adopted for the seriously visually handicapped child must depend upon an actual knowledge of the eye conditions in each case. The fact that there is a considerable number of causes of seriously defective vision, with resulting eye conditions which impose varying limitations upon the future use of sight, complicates still further the educational problem and emphasizes the need

for accurate and dependable information upon this most important subject. The source of such dependable information must, of course, be the medical profession and particularly that special branch which is known as ophthalmology. However, there does not yet exist an agreement among ophthalmologists generally upon what eye defects and what degree of such defects should constitute a basis upon which to determine eligibility for admission to a sight-saving class. Furthermore, there exists no dependable body of information about the educational limitations, or, rather, we do not have sufficient knowledge about the eye activities possible for an individual having a particular defect as, for instance, progressive myopia. Such knowledge must, of course, come from ophthalmologists who must also understand the educational processes which may be employed. It is evident that neither the ophthalmologist nor the educator working alone can evolve a satisfactory body of knowledge about eye conditions and education which will result in the greatest good to the child whose sight is in danger.

The work of establishing sight-saving classes is, taking the whole country into consideration, just at its beginning. Much purposeful and experimental work has been carried on in this field. Many more research studies and further hopeful experiments are needed. It is in the hope that Cincinnati may assist in solving some of these problems that a few of those most pressing for solution are given here:

First, what eye defects and what degree of those defects warrant admission to a sight-saving class? A number of states and a larger number of cities have adopted guides which vary greatly, and it is doubtful if any of these guides is based on actual experience in watching children at work under close ocular supervision. It is hoped that competent ophthalmologists may be induced to give much more attention to this particular subject and that a rather extended statement will be made for the use of medical men generally which will set forth in detail eyesight conditions which would warrant admission to a sight-saving class.

Second, what educational work can safely be required from a child suffering from a particular eye defect or from a child with an eye defect of stated degree? It is quite clear that the answers to this question will be almost as numerous as would be the possible classifications into which all children in sight-saving classes could be grouped as far as kinds of eye defects and degrees of defects could be determined.

At the present time there exists only a somewhat hazy notion as to the extent to which a child suffering from myopia may use his eyes. To answer this particular question, it would seem necessary that a competent ophthalmologist, or group of ophthalmologists, must become thoroughly familiar with the educational processes used in sight-saving classes and to determine which of these can be used without harm. Here again the answer to the question asked will depend to a considerable extent upon the degree of myopia and its recorded progressiveness or its likelihood to progress. What degree of progressive myopia in a child will justify forbidding him the use of his eyes in reading from the printed page or from the blackboard?

Third, should large type books be used by all pupils in the class or are there certain types of eye defects where even a smaller size type than that used in the ordinary school text-book might be advisable? For example, are there not certain types of eye defects where the clear cornea at front of pupillary area field of vision is very restricted, yet where health of the optic nerve, and portions of the retina, and transparency of the eyeball are such that no particular eye strain is involved in reading from books printed in the usual school type?

It is generally agreed that in the process of reading, children learn from groups of words and phrases. If this is true, is not the child suffering from certain forms of interstitial keratitis unduly handicapped when he attempts to read from 24 point type where a word even of ordinary length is too long to be taken in at one glance? Are there not certain forms of eye defects where the cornea is scarred where eye strain is not usually involved and where smaller size type and type of the ordinary text could be used without additional eye strain?

There are many other classes of eye defects which should be considered in relation to the size of type and other educational material that should be solved or studied. It suffices here only to state the type of problem. Many other problems could be stated but this paper is already too long.

Conclusion.

The National Committee for the Prevention of Blindness co-operates very closely with the Department of Education of the City of Cincinnati. It would welcome the same degree of co-operation with the organized practice of medicine. It would also be glad to suggest ophthalmological problems which might be studied by a committee of the Academy of Medicine of Cincinnati, and to serve in any general direction of such a study which might seem desirable.

Digitized by the Internet Archive
in 2015

https://archive.org/details/nationalworkforc00lewi